

REMARKS

Claims 1-24 are pending in the current application. The Office rejected claims 1-24. Claims 1-8 were rejected under 35 U.S.C. § 102 and claims 9-24 were rejected under 35 U.S.C. § 103. The Applicants amend the claims and assert that the claims are now in condition for allowance.

Phone Interview

The Applicants and the Examiner spoke on telephone on February 5, 2009 to discuss the present application. The nature of rejections and the art of record were discussed. The Applicants thank the Examiner for the opportunity to discuss the case.

Amendments to Independent Claims 1, 9 and 15

The Applicants have amended independent claims 1, 9, and 15. Each of these claims have been amended to clarify that for each emitter there is a corresponding array of sensors that is paired with the emitter. The corresponding array of sensors is closer to that emitter than any other emitter. As already required by the claims, at least some of the sensors in the array are different distances from the emitter.

This amendment clarifies that the array of sensors most closely surrounding an emitter is intended to be paired with that emitter. Each emitter-sensor group detects the local presence of ice over that particular emitter-sensor group. In typical operation, a signal from the emitter from one of the emitter-sensor groups is not detected by a sensor from another emitter-sensor group.

This amendment clearly distinguishes the claims of the present application from the art of record. In particular, Padawer (U.S. Pat. No. 5,484,121) does not show an emitter having a corresponding group of sensors in which the sensors are located at different distances from the emitter. Rather, Padawer shows either a single emitter - single sensor grouping or a single emitter - multiple sensor grouping in which all of the sensors are equidistant from the emitter.

Such a configuration does not offer the benefits of the claimed structure. The claimed arrangement of groups of emitters with locally grouped sensors gives much more information about the ice in addition to just the presence or absence of ice over the detector. Via sensor derived algorithms, the thickness and roughness of the ice can be determined. In effect, this information also enables the detectors to be used as an icing rate meter.

Accordingly, it is respectfully requested that the novelty rejections of claims 1-8 under Padawer be withdrawn. Further, it is respectfully requested that the obviousness rejections of claims 9-24 under Padwawer in further view of various references be removed, as none of the other references of record meet the deficiencies of Padawer.

Conclusion

In view of the remarks above, it is believed that the application is in condition for allowance. However, the Examiner is invited to contact the undersigned attorney by telephone if doing so would expedite the allowance of this application.

Additional fees are believed to be due for a one-month extension of time. Please charge these fees to Deposit Account 17-0055. It is not believed that any other additional fees are due. However, in the event that other fees are due, including fees for an additional extension of time, please charge them to this deposit account.

Respectfully submitted,

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